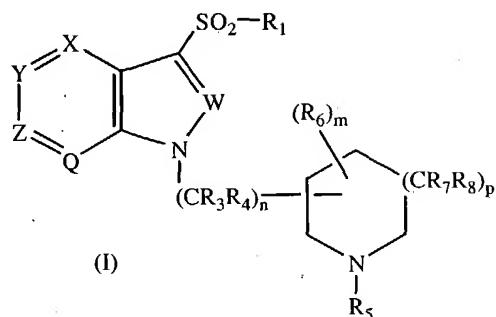


What is claimed is:

1. A compound of formula I



5

wherein

W is N or CR₂;

X is N or CR₉;

Y is N or CR₁₀;

10

Z is N or CR₁₁;

Q is N or CR₁₂ with the proviso that at least one and not more than two of X, Y, Z and Q must be N;

15

R₁ is an optionally substituted C₁-C₆alkyl, C₃-C₇cycloalkyl, aryl, or heteroaryl group or an optionally substituted 8- to 13-membered bicyclic or tricyclic ring system having a N atom at the bridgehead and optionally containing 1, 2 or 3 additional heteroatoms selected from N, O or S;

20

R₂ is H, halogen, or a C₁-C₆alkyl, C₁-C₆alkoxy, C₃-C₇cycloalkyl, aryl or heteroaryl group each optionally substituted;

25

R₃ and R₄ are each independently H or an optionally substituted C₁-C₆alkyl group;

R₅ is H or a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R₆ is a C₁-C₆alkyl, C₃-C₇cycloalkyl, C₂-C₆alkenyl or C₂-C₆alkynyl group each optionally substituted;

25

R₇ and R₈ are each independently H or a C₁-C₆alkyl, C₃-C₇cycloalkyl, C₂-C₆alkenyl or C₂-C₆alkynyl group each optionally substituted;

m and n are each independently 0 or an integer of 1, 2 or 3;

p is 0 or an integer of 1 or 2;

R_9, R_{10}, R_{11} and R_{12} are each independently H, halogen, CN, OCO_2R_{13} , CO_2R_{14} , $CONR_{15}R_{16}$, SO_xR_{17} , $NR_{18}R_{19}$, OR_{20} , COR_{21} or a C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_7 cycloalkyl, aryl or heteroaryl group each optionally substituted;

5 R_{13}, R_{14}, R_{17} and R_{21} are each independently H or a C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_6 cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

10 R_{15}, R_{16}, R_{18} and R_{19} are each independently H or an optionally substituted C_1 - C_4 alkyl group or R_{15} and R_{16} or R_{18} and R_{19} may be taken together with the atom to which they are attached to form a 5- to 7-membered ring optionally containing another heteroatom selected from O, NR_{22} or SO_q ;

15 R_{20} is a C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_7 cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted; x and q are each independently 0 or an integer of 1 or 2; and R_{22} is H or a C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_7 cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted; or the stereoisomers thereof or the pharmaceutically acceptable salts thereof.

20 2. The compound according to claim 1 wherein n is 0 or 1.

3. The compound according to claim 1 wherein R_5 is H or methyl.

25 4. The compound according to claim 1 wherein R_1 is an optionally substituted phenyl, thienyl or imidazothiazolyl group.

30 5. The compound according to claim 2 wherein p is 0 or 1.

6. The compound according to claim 2 wherein m is 0.

7. The compound according to claim 5 wherein the piperidinyl group is attached in the 3-position of the piperidine ring or the pyrrolidinyl group is attached in the 2-position of the pyrrolidine ring.

8. The compound according to claim 7 wherein R₅ is H or methyl and R₁ is an optionally substituted phenyl, thienyl or imidazothiazolyl group.

9. The compound according to claim 1 selected from the group
5 consisting of:

- 3-(phenylsulfonyl)-1-[(2R)-pyrrolidin-2-ylmethyl]-1H-pyrrolo[2,3-b]pyridine;
- 3-(phenylsulfonyl)-1-[(2S)-pyrrolidin-2-ylmethyl]-1H-pyrrolo[2,3-b]pyridine;
- 3-[(4-methylphenyl)sulfonyl]-1-(piperidin-4-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;
- 6-bromo-3-(phenylsulfonyl)-1-(piperidin-4-ylmethyl)-1H-pyrrolo[2,3-c]pyridine;
- 10 4-chloro-3-(phenylsulfonyl)-1-(piperidin-4-ylmethyl)-1H-pyrazolo[4,3-b]pyridine;
- 7-methoxy-3-(phenylsulfonyl)-1-(piperidin-4-ylmethyl)-1H-pyrrolo[2,3-c]pyridine;
- 6-hydroxy-3-(phenylsulfonyl)-1-(piperidin-4-ylmethyl)-1H-pyrrolo[3,2-b]pyridine;
- 6-chloro-3-[(4-fluorophenyl)sulfonyl]-1-(piperidin-4-ylmethyl)-1H-pyrrolo[2,3-
c]pyridine;
- 15 6-fluoro-3-[(3-fluorophenyl)sulfonyl]-1-(piperidin-4-ylmethyl)-1H-pyrrolo[3,2-b]pyridine;
- 5-chloro-3-[(3-chlorophenyl)sulfonyl]-1-(piperidin-4-ylmethyl)-1H-pyrrolo[3,2-
c]pyridine;
- 3-[(2-chlorophenyl)sulfonyl]-6-fluoro-1-(piperidin-4-ylmethyl)-1H-pyrrolo[2,3-
c]pyridine;
- 20 3-[(2-fluorophenyl)sulfonyl]-6-methoxy-1-(piperidin-4-ylmethyl)-1H-pyrrolo[3,2-
b]pyridine;
- 4-chloro-3-(phenylsulfonyl)-1-(piperidin-3-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;
- 7-methoxy-3-(phenylsulfonyl)-1-(piperidin-3-ylmethyl)-1H-pyrrolo[2,3-c]pyridine;
- 6-hydroxy-3-(phenylsulfonyl)-1-(piperidin-3-ylmethyl)-1H-pyrrolo[3,2-b]pyridine;
- 25 6-chloro-3-[(4-fluorophenyl)sulfonyl]-1-(piperidin-2-ylmethyl)-1H-pyrrolo[3,2-
c]pyridine;
- 6-fluoro-3-[(3-fluorophenyl)sulfonyl]-1-(piperidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;
- 5-chloro-3-[(3-chlorophenyl)sulfonyl]-1-(piperidin-2-ylmethyl)-1H-pyrrolo[2,3-
c]pyridine;
- 30 3-[(2-chlorophenyl)sulfonyl]-6-fluoro-1-(piperidin-2-ylmethyl)-1H-pyrrolo[3,2-
b]pyridine;
- 3-[(2-fluorophenyl)sulfonyl]-6-methoxy-1-(piperidin-2-ylmethyl)-1H-pyrrolo[3,2-
c]pyridine;

3-(phenylsulfonyl)-1-(piperidin-4-ylmethyl)-1H-pyrazolo[4,3-b]pyridine;
 3-(phenylsulfonyl)-1-(piperidin-3-ylmethyl)-1H-pyrazolo[4,3-c]pyridine;
 3-(phenylsulfonyl)-1-(piperidin-2-ylmethyl)-1H-pyrazolo[4,3-b]pyridine;
 3-(phenylsulfonyl)-1-(pyrrolidin-3-ylmethyl)-1H-pyrazolo[3,4-c]pyridine;

5 3-(phenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrazolo[3,4-b]pyridine;
 6-bromo-3-(phenylsulfonyl)-1-(pyrrolidin-3-ylmethyl)-1H-pyrrolo[3,2-c]pyridine;
 4-chloro-2-methyl-3-(phenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-
 b]pyridine;
 7-methoxy-3-(phenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-c]pyridine;

10 6-hydroxy-3-(phenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[3,2-b]pyridine;
 1-(piperidin-2-ylmethyl)-3-(2-pyridinylsulfonyl)-1H-pyrrolo[3,2-c]pyridine;
 1-(piperidin-3-ylmethyl)-3-(2-pyridinylsulfonyl)-1H-pyrrolo[2,3-b]pyridine;
 3-(2-pyridinylsulfonyl)-1-(pyrrolidin-3-ylmethyl)-1H-pyrrolo[2,3-c]pyridine;
 1-(piperidin-3-ylmethyl)-3-(2-thienylsulfonyl)-1H-pyrazolo[4,3-b]pyridine;

15 1-(piperidin-2-ylmethyl)-3-(2-thienylsulfonyl)-1H-pyrazolo[4,3-b]pyridine;
 3-(phenylsulfonyl)-1-piperidin-3-yl-1H-pyrazolo[4,3-b]pyridine;
 3-[(2-fluorophenyl)sulfonyl]-1-pyrrolidin-3-yl-1H-pyrazolo[4,3-b]pyridine;
 1-(1-methylpiperidin-4-yl)-3-(phenylsulfonyl)-1H-pyrazolo[4,3-b]pyridine;
 1-(1-phenethylpyrrolidin-3-yl)-3-(phenylsulfonyl)-1H-pyrrolo[3,2-c]pyridine;

20 1-piperidin-4-yl-3-(2-pyridylsulfonyl)-1H-pyrrolo[2,3-c]pyridine;
 1-piperidin-3-yl-3-(2-thienylsulfonyl)-1H-pyrrolo[3,2-b]pyridine;
 1-pyrrolidin-3-yl-3-(3-thienylsulfonyl)-1H-pyrrolo[3,2-b]pyridine;
 1-[(1-benzylpyrrolidin-2-yl)methyl]-3-(phenylsulfonyl)-1H-pyrrolo[2,3-b]pyridine;
 3-(phenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;

25 1-[(1-benzylpyrrolidin-2-yl)methyl]-3-(3-fluorophenylsulfonyl)-1H-pyrrolo[2,3-b]-
 pyridine;
 3-(3-fluorophenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;
 1-[(1-benzylpyrrolidin-2-yl)methyl]-3-(3-chlorophenylsulfonyl)-1H-pyrrolo[2,3-b]-
 pyridine;

30 3-(3-chlorophenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;
 3-(3-chlorophenylsulfonyl)-1-[(1-methylpyrrolidin-2-yl)methyl]-1H-pyrrolo[2,3-
 b]pyridine;

3-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;

3-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1-(1-methylpiperidin-3-yl)-1H-pyrrolo[2,3-b]pyridine;

5 3-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1-(piperidin-3-yl)-1H-pyrrolo[2,3-b]pyridine;

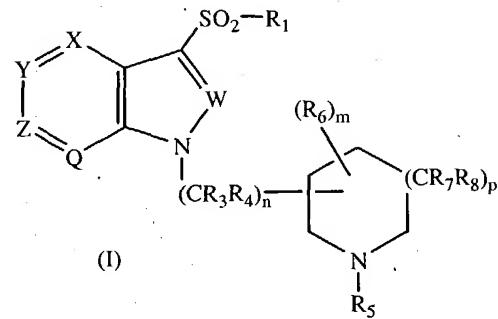
3-[(6-chlorothien-2-yl)sulfonyl]-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;

the stereoisomers thereof; and

the pharmaceutically acceptable salts thereof.

10

10. A method for the treatment of a central nervous system disorder related to or affected by the 5-HT₆ receptor in a patient in need thereof which comprises providing to said patient a therapeutically effective amount of a compound of formula I



15

wherein

W is N or CR₂;

X is N or CR₉;

Y is N or CR₁₀;

20 Z is N or CR₁₁;

Q is N or CR₁₂ with the proviso that at least one and not more than two of X, Y, Z and Q must be N;

25 R₁ is an optionally substituted C₁-C₆alkyl, C₃-C₇cycloalkyl, aryl, or heteroaryl group or an optionally substituted 8- to 13-membered bicyclic or tricyclic ring system having a N atom at the bridgehead and optionally containing 1, 2 or 3 additional heteroatoms selected from N, O or S;

R₂ is H, halogen, or a C₁-C₆alkyl, C₁-C₆alkoxy, C₃-C₇cycloalkyl, aryl or heteroaryl group each optionally substituted;

R₃ and R₄ are each independently H or an optionally substituted C₁-C₆alkyl group;

R₅ is H or a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

5 R₆ is a C₁-C₆alkyl, C₃-C₇cycloalkyl, C₂-C₆alkenyl or C₂-C₆alkynyl group each optionally substituted;

R₇ and R₈ are each independently H or a C₁-C₆alkyl, C₃-C₇cycloalkyl, C₂-C₆alkenyl or C₂-C₆alkynyl group each optionally substituted;

m and n are each independently 0 or an integer of 1, 2 or 3;

10 p is 0 or an integer of 1 or 2;

R₉, R₁₀, R₁₁ and R₁₂ are each independently H, halogen, CN, OCO₂R₁₃, CO₂R₁₄, CONR₁₅R₁₆, SO_xR₁₇, NR₁₈R₁₉, OR₂₀, COR₂₁ or a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, aryl or heteroaryl group each optionally substituted;

15 R₁₃, R₁₄, R₁₇ and R₂₁ are each independently H or a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R₁₅, R₁₆, R₁₈ and R₁₉ are each independently H or an optionally substituted C₁-C₄alkyl group or R₁₅ and R₁₆ or R₁₈ and R₁₉ may be taken together with the atom to which they are attached to form a 5- to 7-membered ring optionally containing another heteroatom selected from O, NR₂₂ or SO_q;

20 R₂₀ is a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

x and q are each independently 0 or an integer of 1 or 2; and

25 R₂₂ is H or a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted; or the stereoisomers thereof or the pharmaceutically acceptable salts thereof.

30 11. The method according to claim 10 wherein said disorder is a motor disorder, anxiety disorder or cognitive disorder.

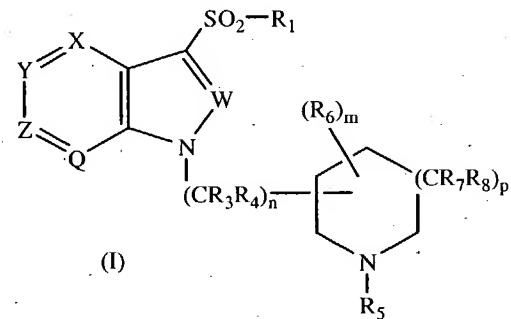
12. The method according to claim 10 wherein said disorder is a neurodegenerative disorder.

13. The method according to claim 11 wherein said disorder is selected from the group consisting of: attention deficit disorder; obsessive compulsive disorder; and withdrawal from drug, alcohol or nicotine addiction.

5 14. The method according to claim 12 wherein said disorder is stroke or head trauma.

15. A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a compound of formula I

10



wherein

W is N or CR₂;

X is N or CR₉;

15

Y is N or CR₁₀;

Z is N or CR₁₁;

Q is N or CR₁₂ with the proviso that at least one and not more than two of X, Y, Z and Q must be N;

20

R₁ is an optionally substituted C₁-C₆alkyl, C₃-C₇cycloalkyl, aryl, or heteroaryl group or an optionally substituted 8- to 13-membered bicyclic or tricyclic ring system having a N atom at the bridgehead and optionally containing 1, 2 or 3 additional heteroatoms selected from N, O or S;

R₂ is H, halogen, or a C₁-C₆alkyl, C₁-C₆alkoxy, C₃-C₇cycloalkyl, aryl or heteroaryl group each optionally substituted;

25

R₃ and R₄ are each independently H or an optionally substituted C₁-C₆alkyl group;

R₅ is H or a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R₆ is a C₁-C₆alkyl, C₃-C₇cycloalkyl, C₂-C₆alkenyl or C₂-C₆alkynyl group each optionally substituted;

R₇ and R₈ are each independently H or a C₁-C₆alkyl, C₃-C₇cycloalkyl, C₂-C₆alkenyl or C₂-C₆alkynyl group each optionally substituted;

5 m and n are each independently 0 or an integer of 1, 2 or 3;

p is 0 or an integer of 1 or 2;

R₉, R₁₀, R₁₁ and R₁₂ are each independently H, halogen, CN, OCO₂R₁₃, CO₂R₁₄, CONR₁₅R₁₆, SO_xR₁₇, NR₁₈R₁₉, OR₂₀, COR₂₁ or a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, aryl or heteroaryl group each optionally substituted;

10 R₁₃, R₁₄, R₁₇ and R₂₁ are each independently H or a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R₁₅, R₁₆, R₁₈ and R₁₉ are each independently H or an optionally substituted C₁-C₄alkyl group or R₁₅ and R₁₆ or R₁₈ and R₁₉ may be taken together with the atom to which they are attached to form a 5- to 7-membered ring optionally containing another heteroatom selected from O, NR₂₂ or SO_q;

15 R₂₀ is a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

20 x and q are each independently 0 or an integer of 1 or 2; and R₂₂ is H or a C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₇cycloalkyl, cycloheteroalkyl, aryl or heteraryl group each optionally substituted; or the stereoisomers thereof or the pharmaceutically acceptable salts thereof.

25 16. The composition according to claim 15 having a formula I compound wherein n is 0 or 1.

30 17. The composition according to claim 16 having a formula I compound wherein R₁ is an optionally substituted phenyl, thienyl or imidazothiazolyl group and R₅ is H or methyl.

18. The composition according to claim 17 having a formula I compound wherein p is 0 or 1 and the piperidinyl group is attached in the 3-position of the

piperidine ring or the pyrrolidinyl group is attached in the 2-position of the pyrrolidine ring.

19. The composition according to claim 15 having a formula I compound
5 selected from the group consisting of:

- 3-(phenylsulfonyl)-1-[(2R)-pyrrolidin-2-ylmethyl]-1H-pyrrolo[2,3-b]pyridine;
- 3-(phenylsulfonyl)-1-[(2S)-pyrrolidin-2-ylmethyl]-1H-pyrrolo[2,3-b]pyridine;
- 3-[(4-methylphenyl)sulfonyl]-1-(piperidin-4-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;
- 6-bromo-3-(phenylsulfonyl)-1-(piperidin-4-ylmethyl)-1H-pyrrolo[2,3-c]pyridine;
- 10 4-chloro-3-(phenylsulfonyl)-1-(piperidin-4-ylmethyl)-1H-pyrazolo[4,3-b]pyridine;
- 7-methoxy-3-(phenylsulfonyl)-1-(piperidin-4-ylmethyl)-1H-pyrrolo[2,3-c]pyridine;
- 6-hydroxy-3-(phenylsulfonyl)-1-(piperidin-4-ylmethyl)-1H-pyrrolo[3,2-b]pyridine;
- 6-chloro-3-[(4-fluorophenyl)sulfonyl]-1-(piperidin-4-ylmethyl)-1H-pyrrolo[2,3-
c]pyridine;
- 15 6-fluoro-3-[(3-fluorophenyl)sulfonyl]-1-(piperidin-4-ylmethyl)-1H-pyrrolo[3,2-b]pyridine;
- 5-chloro-3-[(3-chlorophenyl)sulfonyl]-1-(piperidin-4-ylmethyl)-1H-pyrrolo[3,2-
c]pyridine;
- 3-[(2-chlorophenyl)sulfonyl]-6-fluoro-1-(piperidin-4-ylmethyl)-1H-pyrrolo[2,3-
c]pyridine;
- 20 3-[(2-fluorophenyl)sulfonyl]-6-methoxy-1-(piperidin-4-ylmethyl)-1H-pyrrolo[3,2-
b]pyridine;
- 4-chloro-3-(phenylsulfonyl)-1-(piperidin-3-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;
- 7-methoxy-3-(phenylsulfonyl)-1-(piperidin-3-ylmethyl)-1H-pyrrolo[2,3-c]pyridine;
- 6-hydroxy-3-(phenylsulfonyl)-1-(piperidin-3-ylmethyl)-1H-pyrrolo[3,2-b]pyridine;
- 25 6-chloro-3-[(4-fluorophenyl)sulfonyl]-1-(piperidin-2-ylmethyl)-1H-pyrrolo[3,2-
c]pyridine;
- 6-fluoro-3-[(3-fluorophenyl)sulfonyl]-1-(piperidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;
- 5-chloro-3-[(3-chlorophenyl)sulfonyl]-1-(piperidin-2-ylmethyl)-1H-pyrrolo[2,3-
c]pyridine;
- 30 3-[(2-chlorophenyl)sulfonyl]-6-fluoro-1-(piperidin-2-ylmethyl)-1H-pyrrolo[3,2-
b]pyridine;
- 3-[(2-fluorophenyl)sulfonyl]-6-methoxy-1-(piperidin-2-ylmethyl)-1H-pyrrolo[3,2-
c]pyridine;

3-(phenylsulfonyl)-1-(piperidin-4-ylmethyl)-1H-pyrazolo[4,3-b]pyridine;
3-(phenylsulfonyl)-1-(piperidin-3-ylmethyl)-1H-pyrazolo[4,3-c]pyridine;
3-(phenylsulfonyl)-1-(piperidin-2-ylmethyl)-1H-pyrazolo[4,3-b]pyridine;
3-(phenylsulfonyl)-1-(pyrrolidin-3-ylmethyl)-1H-pyrazolo[3,4-c]pyridine;

5 3-(phenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrazolo[3,4-b]pyridine;
6-bromo-3-(phenylsulfonyl)-1-(pyrrolidin-3-ylmethyl)-1H-pyrrolo[3,2-c]pyridine;
4-chloro-2-methyl-3-(phenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-
b]pyridine;
7-methoxy-3-(phenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-c]pyridine;

10 6-hydroxy-3-(phenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[3,2-b]pyridine;
1-(piperidin-2-ylmethyl)-3-(2-pyridinylsulfonyl)-1H-pyrrolo[3,2-c]pyridine;
1-(piperidin-3-ylmethyl)-3-(2-pyridinylsulfonyl)-1H-pyrrolo[2,3-b]pyridine;
3-(2-pyridinylsulfonyl)-1-(pyrrolidin-3-ylmethyl)-1H-pyrrolo[2,3-c]pyridine;
1-(piperidin-3-ylmethyl)-3-(2-thienylsulfonyl)-1H-pyrazolo[4,3-b]pyridine;

15 1-(piperidin-2-ylmethyl)-3-(2-thienylsulfonyl)-1H-pyrazolo[4,3-b]pyridine;
3-(phenylsulfonyl)-1-piperidin-3-yl-1H-pyrazolo[4,3-b]pyridine;
3-[(2-fluorophenyl)sulfonyl]-1-pyrrolidin-3-yl-1H-pyrazolo[4,3-b]pyridine;
1-(1-methylpiperidin-4-yl)-3-(phenylsulfonyl)-1H-pyrazolo[4,3-b]pyridine;
1-(1-phenethylpyrrolidin-3-yl)-3-(phenylsulfonyl)-1H-pyrrolo[3,2-c]pyridine;

20 1-piperidin-4-yl-3-(2-pyridylsulfonyl)-1H-pyrrolo[2,3-c]pyridine;
1-piperidin-3-yl-3-(2-thienylsulfonyl)-1H-pyrrolo[3,2-b]pyridine;
1-pyrrolidin-3-yl-3-(3-thienylsulfonyl)-1H-pyrrolo[3,2-b]pyridine;
1-[(1-benzylpyrrolidin-2-yl)methyl]-3-(phenylsulfonyl)-1H-pyrrolo[2,3-b]pyridine;
3-(phenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;

25 1-[(1-benzylpyrrolidin-2-yl)methyl]-3-(3-fluorophenylsulfonyl)-1H-pyrrolo[2,3-b]-
pyridine;
3-(3-fluorophenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;
1-[(1-benzylpyrrolidin-2-yl)methyl]-3-(3-chlorophenylsulfonyl)-1H-pyrrolo[2,3-b]-
pyridine;

30 3-(3-chlorophenylsulfonyl)-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;
3-(3-chlorophenylsulfonyl)-1-[(1-methylpyrrolidin-2-yl)methyl]-1H-pyrrolo[2,3-
b]pyridine;

3-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1-(1-methylpiperidin-3-yl))-1H-pyrrolo[2,3-b]pyridine;

3-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1-(piperidin-3-yl))-1H-pyrrolo[2,3-b]pyridine;

5 3-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;

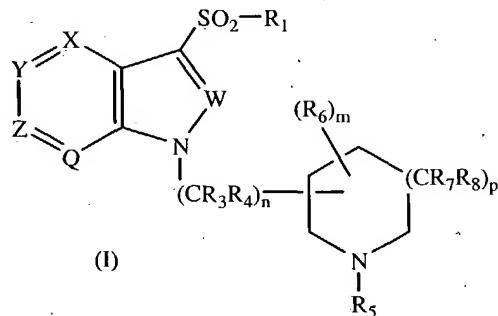
3-[(6-chlorothien-2-yl)sulfonyl]-1-(pyrrolidin-2-ylmethyl)-1H-pyrrolo[2,3-b]pyridine;

the stereoisomers thereof; and

the pharmaceutically acceptable salts thereof.

10

20. A process for the preparation of a compound of formula I



wherein

15 W is N or CR₂;

X is N or CR₉;

Y is N or CR₁₀;

Z is N or CR₁₁;

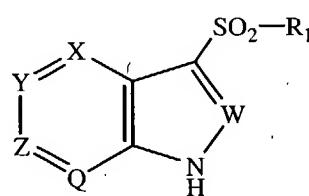
Q is N or CR₁₂ with the proviso that at least one and not more than two of X, Y, Z and Q must be N;

20 R₁ is an optionally substituted C₁-C₆alkyl, C₃-C₇cycloalkyl, aryl, or heteroaryl group or an optionally substituted 8- to 13-membered bicyclic or tricyclic ring system having a N atom at the bridgehead and optionally containing 1, 2 or 3 additional heteroatoms selected from N, O or S;

25 R₂ is H, halogen, or a C₁-C₆alkyl, C₁-C₆alkoxy, C₃-C₇cycloalkyl, aryl or heteroaryl group each optionally substituted;

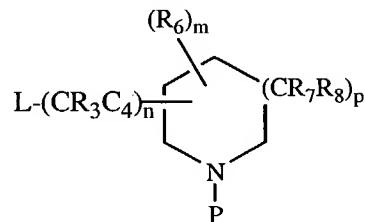
R₃ and R₄ are each independently H or an optionally substituted C₁-C₆alkyl group;

R_5 is H or a C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_7 cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;
 R_6 is a C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, C_2 - C_6 alkenyl or C_2 - C_6 alkynyl group each optionally substituted;
5 R_7 and R_8 are each independently H or a C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, C_2 - C_6 alkenyl or C_2 - C_6 alkynyl group each optionally substituted;
 m and n are each independently 0 or an integer of 1, 2 or 3;
 p is 0 or an integer of 1 or 2;
 R_9 , R_{10} , R_{11} and R_{12} are each independently H, halogen, CN, OCO_2R_{13} ,
10 CO_2R_{14} , $CONR_{15}R_{16}$, SO_xR_{17} , $NR_{18}R_{19}$, OR_{20} , COR_{21} or a C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_7 cycloalkyl, aryl or heteroaryl group each optionally substituted;
 R_{13} , R_{14} , R_{17} and R_{21} are each independently H or a C_1 - C_6 alkyl, C_2 - C_6 alkenyl,
15 C_2 - C_6 alkynyl, C_3 - C_6 cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;
 R_{15} , R_{16} , R_{18} and R_{19} are each independently H or an optionally substituted
 C_1 - C_4 alkyl group or R_{15} and R_{16} or R_{18} and R_{19} may be taken together
 20 with the atom to which they are attached to form a 5- to 7-membered
 x and q are each independently 0 or an integer of 1 or 2; and
 R_{22} is H or a C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_7 cycloalkyl,
25 cycloheteroalkyl, aryl or heteroaryl group each optionally substituted
which process comprises reacting a compound of formula II



(II)

wherein W, X, Y, Z and Q are described hereinabove with a protected azacyclic compound of formula III



(III)

5

wherein L represents a leaving group; P represents a protecting group and R₃, R₄, R₆, R₇, R₈, n, m and p are as described hereinabove in the presence of a first base to give the protected amine of formula I; and deprotecting said amine to give the compound of formula I wherein R₅ is H optionally alkylating said formula I compound

10 with a compound, R₅-L', wherein L' is a leaving group in the presence of a second base.